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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,173	04/16/2004	Koichi Miyachi	12480-000037/US	9064
30/593 7590 03/04/2010 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 8910 RESTON, VA 20195				
EXAMINER				
MA, CALVIN				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/825,173

**Applicant(s)**

MIYACHI ET AL.

**Examiner**

CALVIN C. MA

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 15, 16, 21-24, 31-38, 60-76 and 131-138 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 33-38, 63-76 and 131-138 is/are rejected.
- 7) ☒ Claim(s) 4, 15-16, 21-24, 31, 32, 60-62 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Final Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 33-38, 63-67, 69-72, 74-76 rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji (USP 6480258) in view of Wojaczynski et al. (USP 5442375).

As to claim 1, Tsuji teaches a color display device (i.e. color photos printed by the film processing system 6) that determines a relationship between plural color components (i.e. RGB signals picked up by each of the three CCD sensors 3C) (see Fig. 2, Col. 4, Lines 3-19) of an input color image signal in terms of gradation levels of the plural color components of an input color image signal (i.e. the exposure level of the film 1 adopted to the color), and that carries out calculation based on the relationship for each of the plural color components excluding a components with a relatively smallest gradation level (i.e. the components of the color of the film itself which is relatively smallest gradation is excluded by the system to create an improved image) (see Fig. 3, Col. 5, Lines 3-39), using variable varying depending on the relationship among the respective gradation levels of the plural color components (i.e. the system also compensated for variety of other characteristic such as image quality base on the film's

attribute such as contrast, sharpness, and saturation which is based on relationship of different quality of the image such as gradation level) (see Fig. 3, Col. 5, Lines 30-50).

However Tsuji does not explicitly teach wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation. Wojaczynski teaches wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation (i.e. Wojaczynski teaches the lowest levels of the gradations in the black grayscale value shifting bar as shown in the computer display control box of figure 2B, where the user is able to set such level at the same condition as before which means no change for the computer to adjust to, and while all the other color gray scale values are adjusted) (Fig. 2B, Col. 8, Line 1-38).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the color customized adjustment design of Wojaczynski which ignores the lowest effecting gradation to the overall image processing system of Tsuji since customized color display control allow the computer to display better a variety of display system such as LCD and plasma display (see Wojaczynski Col. 1, Line 60-Col. 2, Line 6).

As to claim 2, Tsuji teaches a color display device that determines a relationship between three color components of an input color image signal (i.e. RGB signals picked up by each of the three CCD sensors 3C) (see Fig. 2, Col. 4, Lines 3-19) in terms of gradation level of the three color components of an input color image signal, and that

carries out a different calculation for each input color image signal depending on which of six patterns of the relationship that the input color image signal belongs to (i.e. image quality corrector 50 include a correction computing unit 51 that compensate the color parameter and improve the image quality) (see Fig. 3), the calculation being performed for each of the three color components excluding a components with a relatively smallest gradation level, using variable varying depending on the relationship among the respective gradation levels of the three color components (i.e. the color of the film 1 itself is excluded to improve the output quality) (see Fig. 2-3, Col. 5, Lines 1-60).

However Tsuji does not explicitly teach wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation. Wojaczynski teaches wherein the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation (i.e. Wojaczynski teaches the lowest levels of the gradations in the black grayscale value shifting bar as shown in the computer display control box of figure 2B, where the user is able to set such level at the same condition as before which means no change for the computer to adjust to, and while all the other color gray scale values are adjusted) (Fig. 2B, Col. 8, Line 1-38).

As to claim 3, Tsuji teaches the color display device as set forth in claim 1, wherein:

the variables are determined so that gradation levels of the input color images signal after color compensation fall within a range of a color model that expresses the

gradation levels of the image signal before and after color compensation in terms of distributions of hue, luminance, and saturation (i.e. the system also compensated for variety of other characteristic such as image quality base on the film's attribute such as contrast, sharpness, and saturation which require the compensation in terms of distribution of hue and luminance since contrast and sharpness require these parameter to be calculated as well) (see Fig. 3, Col. 5, Lines 30-50).

As to claims 33, 35, 37, 63, and 66 see discussion of claim 1 above, claim 33, 35, and 37 are analyzed to be broader in scope then claim 1, and are therefore rejected on the same ground.

As to claim 34, 36, 38, 65, and 72, see discussion of claim 2 above, claim 34, 36, and 38 are analyzed to be broader in scope then claim 2, and are therefore rejected on the same ground.

As to claims 64 and 67, see discussion of claim 3 above, claim 64 is analyzed to be broader in scope than claim 3, and is therefore rejected on the same ground.

As to claims 69 and 74, Tsuji teaches a program adapted to cause a computer to execute the method of claim 66 (i.e. the image processing unit 8 is clear a part of a computing system, this mean that a program is need to allow the implementation of the correction mechanism) (i.e. image quality corrector 50 include a correction computing

unit 51 that compensate the color parameter and improve the image quality) (see Fig. 3, Col. 5, Lines 30-50).

As to claims 70 and 75, Tsuji teaches a computer signal comprising the program of claim 69 (i.e. image quality corrector 50 include a correction computing unit 51 that compensate the color parameter and improve the image quality) (see Fig. 3, Col. 5, Lines 30-50).

As to claims 71 and 76, Tsuji teaches a computer readable medium, comprising the program of claim 69 (i.e. image quality corrector 50 include a correction computing unit 51 that compensate the color parameter and improve the image quality and the Look up table 63 is required by the correction parameter storage) (see Fig. 3, Col. 5, Lines 30-50).

3. Claims 68 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji in view of Wojaczynski as applied in claim 1-3, 33-38, 63-67, 69-72, 74-76 and further in view of Yamashita et al USP 6101271.

As to claim 68, 73, Tsuji teaches the method of 66, but does not explicitly teach wherein the color display method is for a television receiver. Yamashita teaches color display method is for a television receiver (i.e. NTSC format television) (see Fig. 1, Col. 4, Lines 65-67)

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have applied television signal of Yamashita to the input of Tsuji film printing system as Tsuji's system is able to process the digital images such as CG images made with computer graphics software (Tsuji Col. 3, Lines 47-55) in order to expand the function of film print image correction function to television signal input (see Yamashita Col. 1, Lines 20-25).

4. Claims 131-138 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuji in view of Wojaczynski as applied in claim 1-3, 33-38, 63-67, 69-72, 74-76 and further in view of in view of Smith (US Pub: 2004/0105105).

As to claims 131, 133, 135 and 137 Tsuji does not explicitly teaches the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation Smith teaches the gradation level of the color component with the relatively smallest gradation level remains unchanged before and after the calculation (i.e. the K component of the CMYK is not adjusted but is still a percentage in the color space) (see [20]).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the color accentuating method of Smith to improve the printing system of Tsuji, in order to improve the picture quality in print media (see Smith [0005]).



As to claims 132, 134, 136, and 138, Smith teaches the relatively greatest component in gradation level among the three components of RGB is compensated by using both the compensation value of the relatively greatest component and the compensation value of the complementary color of the relatively greatest component and the second relatively greatest component, and the second relatively greatest component in gradation level among the RGB components is compensated by using the compensation value of complementary color of the relatively greatest component and the second relatively greatest component (i.e. the color accentuation system is able to process RGB color and determine the relative magnitude difference with in the color space and adjust base on the relative magnitude, since the example is given in Smith in CMY(K) this does not prevent one of ordinary skill in the art to applied the same technique in RGB color system).

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-3, 33-38, 63-67, 69-72 and 74-76, 131-138 have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

6. Claims 4, 15-16, 21-24, 31-32 and 60-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CALVIN C. MA whose telephone number is (571)270-1713. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chanh Nguyen/  
Supervisory Patent Examiner, Art  
Unit 2629

Calvin Ma

February 22, 2010